

## INTERNATIONAL SEARCH REPORT

International Application No.

PCT/JP03/11654

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl<sup>7</sup> C22B1/16, 1/00, 7/02, 19/30, 19/34, 13/02, B09B3/00,  
C02F11/00,

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> C22B1/00-61/00, B09B3/00, C02F11/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPI

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 2002-194452 A (Aichi Steel Works Ltd.), 10 July, 2002 (10.07.02),	1-6, 8, 9, 13, 15-17
Y	Examples (Family: none)	7, 10, 18-25
Y	JP 53-29122 B2 (Toho Aen Kabushiki Kaisha), 18 August, 1978 (18.08.78), Full text (Family: none)	7, 10, 18-25
A	JP 2001-294942 A (Nippon Steel Corp., Nittetsu Plant Designing Corp.), 26 October, 2001 (26.10.01), (Family: none)	1-25

☒ Further documents are listed in the continuation of Box C.☐ See patent family annex.

\* Special categories of cited documents:

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"P" document published prior to the international filing date but later than the priority date claimed

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search  
27 November, 2003 (27.11.03)Date of mailing of the international search report  
09 December, 2003 (09.12.03)Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 10-265861 A (Sumitomo Metal Mining Co., Ltd.), 06 October, 1998 (06.10.98), (Family: none)	1-25
A	JP 55-104434 A (Dowa Mining Co., Ltd.), 09 August, 1980 (09.08.80), (Family: none)	1-25

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